

Translation

PATENT COOPERATION TREATY

PCT/DE2003/002929



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 2002P14462WO	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/DE2003/002929	International filing date (<i>day/month/year</i>) 03 September 2003 (03.09.2003)	Priority date (<i>day/month/year</i>) 05 September 2002 (05.09.2002)
International Patent Classification (IPC) or national classification and IPC H01L 51/00		
Applicant SIEMENS AKTIENGESELLSCHAFT		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 05 April 2004 (05.04.2004)	Date of completion of this report 15 December 2004 (15.12.2004)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International Application No.

PCT/DE2003/002929

I. Basis of the report

1. With regard to the elements of the international application:*

- ☐ the international application as originally filed
- ☒ the description:
pages _____ 1-5 _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☒ the claims:
pages _____ 1-8 _____, as originally filed
pages _____, as amended (together with any statement under Article 19
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☒ the drawings:
pages _____ 1/2-2/2 _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International Application No.

PCT/DE 03/02929

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims		YES
	Claims	1-8	NO
Inventive step (IS)	Claims		YES
	Claims	1-8	NO
Industrial applicability (IA)	Claims	1-8	YES
	Claims		NO

2. Citations and explanations

Reference is made to the following documents:

D1: DATABASE CHEMABS [Online] CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; 24 June 2002 (2002-06-24), CAMAIONI, NADIA ET AL: "Solar cells based on poly(3-alkyl)thiophenes and [60]fullerene: a comparative study" XP002286364 found in the STN Database accession no. 2002:470013

D2: HUYNH, WENDY ET AL: "Efficient nanorod and polymer photovoltaics from thermal treatment" PROCEEDINGS - ELECTROCHEMICAL SOCIETY, 2001-10 (PHOTOVOLTAICS FOR THE 21ST CENTURY II), 195-198 CODEN: PESODO; ISSN: 0161-6374, 2001, XP001182311 10-2001

D3: ARIAS, A.C. ET AL.: "Vertically segregated polymer-blend photovoltaic thin-film structures through surface-mediated solution processing" APPLIED PHYSICS LETTERS, 80(10), 1695-1697 CODEN: APPLAB; ISSN: 0003-6951, 11 March 2002 (2002-03-11), XP001104270

1. The present application does not meet the requirements of PCT Article 33(1) since the subject matter of claims 1 to 8 is not novel (PCT Article 33(2)).

D1 discloses (the references in brackets are to that document):

Photovoltaic elements consisting of mixtures of poly(3-alkylthiophenes) and fullerenes. The improvement in the efficiency of the cells by heating is described.

D2 and D3 do not concern the above mixtures but also describe production methods which include both heat treatment and contact between the active layer and solvents.

2. Dependent claims 2 to 8 do not contain any features which, combined with the features of any claim to which they refer, meet the PCT novelty and inventive step requirements; see D1 to D3 and the relevant passages cited in the search report.
3. It should further be noted that the present wording of claim 1 at least is very strange. Characterizing the treatment of an active layer with a solvent in that the active layer comes into contact with solvent molecules or characterizing the treatment by tempering with heat appears trivial and does not meet the requirements for the two-part form of claims, as set out in PCT Article 6 and PCT Rule 6.3.